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09/583,747	05/31/2000	Harlan Sexton	50277-450	4124

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[REDACTED] ART UNIT

[REDACTED] PAPER NUMBER

2124

DATE MAILED: 05/20/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	09/583,747	Applicant(s)
Examiner	Art Unit	

Matthew Gubiotti 2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### **Status**

1) Responsive to communication(s) filed on 4/29/03.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### **Disposition of Claims**

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

### **Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a)  The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### **Attachment(s)**

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 5)  Notice of Informal Patent Application (PTO-152)  
 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6)  Other:

**DETAILED ACTION**

1. This action is in response to the amendment filed January 31, 2003.

2. Per request of the applicant:

Claims 1, 3-10, and 12-18 have been amended;

Claims 19-22 have been added.

Claims 1-22 are pending in the application.

3. The Examiner acknowledges receipt of the corrected information in regards to the Application Serial Numbers of related applications.

4. The Examiner acknowledges receipt of the corrected Appendix in regards to the Notice of Non-Responsive Amendment.

**Response to Amendment**

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites the limitation "of the

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recorded as one or more marked tags" in Line 5. The language employed is sufficiently unclear as to render the claim vague and indefinite. The claim has been further treated below as reading "marked tags".

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Arsenault (U.S Pat. No. 5,408,650).

**Claim 1**

Arsenault teaches a method of analyzing a program (See col.2, li.61-66) comprising the steps of logging stack traces and respective tags in a log file (col.6, li.2-10; fig.2, refs.26) at respective points during the execution of the program (col.6, ln.30-36, 50-53); and recording within the log file that one or more of the tags is marked (See "creation count" at col.6, li.42) (col.6, li.30-49; col.7, li.23-43).

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Claim 2

Arsenault further teaches producing a report based on log file (col.2, li.64-66; col.5, li.67 to col.6, li.16; fig.2, ref. 28).

Claim 3

Arsenault further teaches identifying one or more of the stack traces associated with any of the one or more marked tags; and producing said report based on the identified stack traces (col.3, li.11-22).

Claim 4

Arsenault further teaches identifying the last stack trace associated with any of the one or more marked tags; and producing said report based on the identified stack traces (col.3, li.11-22; col.11, li.8-12). For a finite quantity of identified stack traces, the feature is inherent in Arsenault's system to enable specific reports to be generated for any of the identified stack traces (col.12, li.6-8).

Claim 5

Arsenault further teaches a method wherein the tags indicate respective addresses of allocated objects (col.4, li.24-7); and wherein the tags indicate respective addresses of migrated objects (col.6, li.30-40).

Claim 6

Arsenault further teaches creating a diagnostic report for a program comprising accessing a log comprising a list of stack traces and respective tags (col.6, li.2-5; fig.2, ref.26) at associated points during the execution of the program (col.6, ln.30-36, 50-53); and marking one or more of the recorded as one or more marked tags ("creation counter") within the log file (col.6, li.30-49; col.7, li.23-43); and producing a diagnostic report based on the log file (col.7, li.61 to col.8, li.51; fig.2, refs.28&36).

**Claim 7**

Arsenault further teaches identifying one or more of the stack traces associated with any of the one or more marked tags; and producing said report based on the identified stack traces (col.3, li.11-22).

**Claim 8**

Arsenault further teaches identifying the last stack trace associated with any of the one or more marked tags; and producing said report based on the identified stack traces (col.3, li.11-22; col.11, li.8-12). For a finite quantity of identified stack traces, the feature is inherent in Arsenault's system to enable specific reports to be generated for any of the identified stack traces (col.12, li.6-8).

**Claim 9**

Arsenault further teaches a method wherein the tags indicate respective addresses of allocated objects (col.4, li.24-7); and wherein the tags indicate respective addresses of migrated objects (col.6, li.30-40).

**Claims 10-14**

These claims represent an apparatus performing a method corresponding to the methods of claims 1-5, respectively. The claims are rejected under the same arguments as cited above, with Column 3, Lines 23 to 36 referencing the apparatus (computer-readable medium bearing instructions for analyzing a program).

**Claims 15-18**

These claims represent an apparatus performing a method corresponding to the methods of claims 6-9, 19 and 20, respectively. The claims are rejected under the same arguments as cited above, with Column 3, Lines 23 to 36 referencing the apparatus (computer-readable medium bearing instructions for analyzing a program).

***Claim Rejections - 35 USC § 103***

9. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault.

**Claims 19 and 20**

Arsenault teaches an interactive log file that allows a user to specify a processing order for report generation (fig.2, ref.26; col.6, li.30-33). Arsenault does not expressly teach processing the log file from the end to the beginning to produce a report. It would have been obvious to a person of ordinary skill in the art at the time of the invention to process the log file of Arsenault beginning at the end and working towards the front. This would have been obvious because one of ordinary skill in the art would have been motivated to process the newest entry to a sequentially-generated log file first to optimize memory usage and run-time efficiency, as taught by Arsenault (col.6, li.37-40).

**Claims 21 and 22**

These claims represent an apparatus performing a method corresponding to the methods of claims 19 and 20, respectively. The claims are rejected under the same arguments as cited above, with Column 3, Lines 23 to 36 referencing the apparatus (computer-readable medium bearing instructions for analyzing a program).

***Response to Arguments***

10. Applicant's amendments necessitated the new ground(s) of rejection, detailed above.

11. Applicant's arguments filed January 31, 2003 have been fully considered but they are not persuasive. Applicant has asserted, in substance, the following:

a. That the prior art does not "teach or suggest the limitations" of the amended claims as required by statute (See Applicant's remarks, p.12, ¶ 1).

Specifically, Applicant has argued that the Arsenault reference does not disclose the amended claim language of "recording within the log file one or more of the tags as one or more marked tags" (See Applicant's remarks, p.12, li.4-5). Regarding claims 1-18, the Examiner concedes that the rejections, as presented in the original action, do not teach the amended claim language. The above rejection clearly sets forth how the Arsenault patent teaches these amended features, as now claimed.

Furthermore, Applicant asserts that the Arsenault patent fails to teach the "recording within the log file one or more of the tags as one or more marked tags" (See Applicant's remarks, p.12, ¶ 5). The Examiner contends, as stated in the rejection above, that the listing of call

stacks associated with selected memory segments (fig. 2, ref.26; col.5, li.68 to col.6, li.10) is indistinguishable from the log file as claimed. The Examiner find the Applicant's assertion that the Arsenault reference is inadequate because it contains a "graphical representation" and other elements shown on a "display device" unconvincing (See Applicant's remarks, p.12, ¶ 5) (quoting Arsenault col.5, li.65-68).

Applicant has not provided any additional reasons why the original rejection set forth is improper, other than to assert a lack of identical terminology for a functionally identical feature. See 37 CFR 1.111(b) (c).

#### *Conclusion*

12. Applicant's arguments necessitated the new ground(s) of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

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statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Matthew Gubiotti whose telephone number is (703) 305-8285. The Examiner can normally be reached on M-F, 8-4PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MPG  
May 16, 2003

  
TUAN Q. DAM  
PRIMARY EXAMINER